

Page 5, between lines 17 and 18, insert the heading:
--Brief Description of the Drawings--;

line 21, cancel "an";
line 22, change "schematic view" to --cross-sectional views--.

Page 6, between lines 15 and 16, insert the heading:
--Detailed Description of the Invention--.

Page 7, line 13, change "menezzo" to --MENEZZO culture--.

Page 8, line 20, change "plays an essential role" to
--of course determines the time lapse before the contents of
the container can escape into the uterine cavity--.

Page 9, line 29; change "menezzo" to --MENEZZO culture--.

IN THE CLAIMS:

Replace all the claims now in the case with the following new claims:

--28. Process of intra-uterine fertilization in mammals comprising the following steps

a) providing a container of a size suitable for introduction and lodging in the uterine cavity of a mammal and having an exit area;

b) filling the container with culture medium, at least one ovocyte of the mammal and spermatozoa;

c) lodging the filled container in the uterine cavity;

d) leaving the container lodged in the uterine cavity for a specific period of time to allow fertilization of the ovocyte therein; and

e) providing access for the escape of fertilized ovocytes through the exit area in the container into the uterine cavity without removal of the fertilized ovocytes from the uterine cavity.

29. Process according to claim 28, wherein the exit area is open when the container is lodged in the uterine cavity.

30. Process according to claim 28, further comprising temporarily closing off the exit area with a plug before the container is lodged in the uterine cavity, wherein access for the escape of the fertilized ovocytes is effected by expelling the plug from the exit area.

31. Process according to claim 28, further comprising, upon providing access for the escape of fertilized ovocytes, ejecting the contents of the container into the back of the uterine cavity.

32. Process according to claim 28, wherein the exit area is defined by a biodegradable portion of the container, and access for the escape of the fertilized ovocytes is effected by biodegradation of the biodegradable portion.

holding the
33. Process according to claim ⁷28, *butcher comprising* wherein the container lodged in the uterus is held in position at the neck of the *uterine cavity* uterus during steps c) and e).

uterine cavity
34. Process according to claim ⁵32, wherein the container is lodged towards the back of the uterus.

Sub C2
35. Process according to claim 28, wherein the container is lodged in the uterine cavity so that the exit area is disposed relatively adjacent the back of the uterine cavity.

Cont
36. Device for intra-uterine fertilization in mammals comprising a container for containing a culture medium, at least one ovocyte of the mammal and spermatozoa, said container being sized for introduction and lodging in the uterine cavity of the mammal for a time period sufficient to allow fertilization of the ovocytes, said container including means defining an exit area for the escape of in-situ fertilized ovocytes therefrom into the uterine cavity.

C
for
37. Device according to claim ¹⁰36, wherein said means defining an exit area comprising a permanent opening in said container. *means*

Sub C3
38. Device according to claim 36, wherein said means for defining an exit area comprises biodegradable

portion means of the container which is biodegradable through contact with its contents and/or the intra-uterine environment.

¹²
~~39~~¹¹. Device according to claim ~~38~~¹¹, wherein said biodegradable ~~portion~~ means comprises temporary sealing means at the exit area.

¹³
~~40~~¹¹. Device according to claim ~~38~~¹¹, wherein said biodegradable ~~portion~~ means is a wall portion of the container. ^{means}

¹⁶
~~41~~¹¹. Device according to claim ~~38~~¹¹, wherein the container ^{means} is substantially entirely formed of biodegradable material and the biodegradable ~~portion~~ means is a part thereof.

¹⁷
~~42~~¹¹. Device according to claim ~~38~~¹¹, wherein the biodegradable material is a natural animal or vegetable polymer.

¹⁸
~~43~~¹⁷. Device according to claim ~~42~~¹⁷, wherein the natural polymer is selected from a group consisting of collagen, fibrinogen and a polymeric sugar.

¹⁴
~~44.~~ Device according to claim ¹³~~40~~, wherein the biodegradable ~~portion~~ means has a biodegradable period of 15 to 55 hours.

¹⁵
~~45.~~ Device according to claim ¹³~~40~~, wherein the ^{biodegradable} thickness of the ~~portion~~ means is between 0.01 and 1 mm.

¹⁹
~~46.~~ Device according to claim ⁹~~36~~, wherein said means defining an exit area is temporarily closed by a biodegradable plug adapted to be expelled from the container.

²⁰
~~47.~~ Device according to claim ⁹~~36~~, further comprising means for ejecting the contents of the container including ^{at least one fertilized ovocyte} the ~~fertilized ovocytes~~ into the uterine cavity.

²¹
~~48.~~ Device according to claim ²⁰~~47~~, further comprising means for holding the device in the neck of the ^{uterine cavity} ~~uterus~~ when ~~container~~ ^{the container means} is lodged in the uterine cavity and the contents are ejected into the uterine cavity.

²²
~~49.~~ Device according to claim ⁹~~36~~, further comprising means for introducing the container ^{uterine cavity} into the neck of the ~~uterus~~ and transferring it to the uterine cavity.

Sub ^{C4} 50. Device for intra-uterine fertilization in mammals comprising a tube means adapted to be introduced through the neck of the uterus of the mammal into the uterine

cavity, piston means disposed proximate one end of the tube means, said piston means being mounted for sliding movement toward the other end of the tube means, holding means for removably holding the device in the neck of the uterus and for lodging the tube means in the uterus, an exit area proximate the other end of the tube means adapted to face the back of the uterine cavity, said tube means being adapted to accommodate culture medium, at least one ovocyte and spermatozoa for intra-uterine fertilization therein, said piston means being movable toward said other end to expel fertilized ovocytes from said tube means.

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cont

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²⁴
51. Device according to claim ²³~~50~~₁, wherein a flange is disposed proximate to the one end of said tube means.

²⁵
52. Device according to claim ²³~~50~~₁, wherein a plug of biodegradable material is disposed at the exit area for temporarily closing off the tube means, said plug being adapted to be ejected in response to the movement of the piston means towards said other end of said tube means and incipient expulsion of the contents thereof.

²⁶
53. Device according to claim ²³~~50~~₁, wherein said tube means is received in a longitudinal bore formed in said holding means and fastened thereto.

²⁷
~~54~~₁ Device according to claim ²³~~50~~₁, wherein said holding means comprises a first section adapted to be received in the neck of the ~~uterus~~ ^{uterine cavity} and a second section adapted to abut against the cervix, the first section comprising a flexible expansible element having a rest position for insertion and an operating position for bearing against the internal walls of the neck of the ~~uterus~~ ^{uterine cavity}.

²⁸
~~55~~₁ Device according to claim ²⁷~~54~~₁, wherein the flexible expansible element ~~is adapted to expand~~ ^{expands} radially from the rest position to the operating position.

²⁹
~~56~~₁ Device according to claim ²⁷~~54~~₁, wherein the expansible element comprises at least two substantially longitudinal tangs, first ones of the ends of said longitudinal tangs being disposed relatively adjacent said holding means and being movable relative to said tube means, ^{and} second ones of the ends being fixed longitudinally relative to said tube means.

³⁰
~~57~~₁ Device according to claim ²⁹~~56~~₁, wherein the second ends of the tangs are fixed to a collar secured to said tube means.

³¹
~~58~~₁ Device according to claim ²⁹~~56~~₁, wherein said holding means further comprises a mobile section to control the longitudinal position of the first ends of the expansible

element and a section fixed relative to said tube means on which the mobile section is movable.

³²
~~59~~. Device according to claim ³¹~~58~~, wherein the fixed section and the mobile section comprise complementary screw-threads which allow the mobile section to turn and move longitudinally relative to the fixed section.

³³
~~60~~. Device according to claim ³²~~59~~, wherein the screwthreads are on an external surface of the fixed section and on an internal surface of a bush on the mobile section.

³⁴
~~61~~. Device according to claim ³²~~59~~, wherein said mobile section comprises a knurled disc on a longitudinal extension of the fixed section, the extension comprising on an external surface having a complementary screwthread cooperable with that of the knurled disc.

³⁵
~~62~~. Device according to claim ³⁴~~61~~, wherein the second ends of the tangs of the flexible expansible element are attached to a corresponding end of the extension of the fixed section.

³⁶
~~63~~. Device according to claim ³¹~~58~~, wherein the fixed section comprises a bore of greater diameter than the tube means for receiving a pusher device for displacing the piston ^{means} towards the other end of said tube means.